2021
ANNUAL REPORT

SUPPLEMENT 1: 2021 COST-EFFECTIVENESS

INTERMOUNTAIN® GAS COMPANY
A Subsidiary of MDU Resources Group, Inc.
In the Community to Serve®

Energy Efficiency

Introduction

Intermountain's Energy Efficiency Program (EE Program) offers individual customers a way to lower their usage and monthly energy bills. It additionally benefits all customers by ensuring resources are used efficiently which delays the need for expensive system upgrades and additional supply contracts, thereby keeping costs low for everyone. Cost-effectiveness testing is vital to ensuring the Company's EE Program is in fact a least-cost resource, and is integral to the design, implementation, and success of the EE Program.

Cost-Effectiveness and Methodology

Intermountain's objective is for all rebates to have benefit/cost ratios greater than one for the Utility Cost Test (UCT). The UCT measures cost-effectiveness from the utility company's perspective and takes into consideration avoided supply costs, program administration costs and incentives paid by the utility. Rebates undergo cost tests at several stages: preliminary design, implementation, and an annual review. For a different perspective, cost-effectiveness of rebates is also evaluated based on the customer's perspective using avoided supply costs, program administration costs and net participant costs, or the Total Resource Cost Test (TRC). However, the TRC is not the primary cost test used for decisions regarding the inclusion or exclusion of rebate offerings. In calculating the UCT and TRC, Intermountain relies on the calculations outlined in the *California Standard Practice Manual* and the National Action Plan for Energy Efficiency's (NAPEE) *Understanding Cost Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Emerging Issues for Policy-Makers*.

Rebate characteristics such as estimated useful life, deemed therm savings, and incremental cost used for cost-effectiveness testing are provided by the CPA study for all rebates, except for Whole Home rebates. Estimated therm savings for Whole Home rebates are based on the EM&V impact evaluation. The rebate count used in the cost-effectiveness calculation is the actual number of rebates paid for the program year.

Cost-effectiveness of EE Program rebates are reviewed annually. The results are reported in the annual report and reviewed with the Energy Efficiency Stakeholder Committee (EESC). Rebate performance, cost-effectiveness, market insights, and lessons learned are taken into consideration when deciding whether to continue, revise or retire a rebate.

Assumptions

In calculating cost-effectiveness for each rebate and for the Program as a whole, the Company relied upon several assumptions as well as studies provided by independent third-party sources. The section below discusses the key inputs used in calculating cost-effectiveness and the assumptions and sources used.

Energy Savings

Energy savings for each rebate are calculated by multiplying each rebate's gross annual therm savings by the total number of rebates issued. The energy savings are then valuated based on the Company's Avoided Cost. The Avoided Cost is used both to economically evaluate the present value of the therms saved over the life span of the measure and to track the performance of the EE Program. A more in-depth discussion of the Avoided Cost calculation and its components can be found in Case No. INT-G-22-03, Exhibit No. 1 which was originally filed as Exhibit No. 5 in Intermountain's Integrated Resource Plan (Case No. INT-G-21-06).

Rebate Costs

Total rebate costs are calculated by multiplying the value of each rebate by the number of rebates issued for the year.

Equipment & Installation Cost

The incremental equipment and installation costs are inputs to the TRC cost test and were provided by the CPA. These costs represent the incremental purchase and installation costs the participant will pay between a base case measure and a higher efficient alternative. These costs are not offset by the amount of the rebate received by the participant.

Program Delivery & Administration

Program delivery and administration costs are direct assigned to their respective program, either residential or commercial, when they can be specifically identified. For example, the expense of a residential builder mailing list is charged to Residential Program delivery and administration costs. After all direct costs are assigned, the remaining pool of program and administration costs, are split between the residential program and commercial program based on a respective 80/20 split. This ratio is based on program uptake estimates from the 2019 CPA and is intended to divide costs considering the newly

formed commercial program. Within each program, expenses are allocated to each rebate based on the rebate count as percentage of all rebates. This method ensures that costs are allocated in alignment with the overall processing and payment work involved for that rebate. Any cost incurred solely for a particular rebate will be directly assigned to that rebate.

Real Discount Rate

The real discount rate is used to account for the time-value of money and accurately compare costs. The real discount rate is based on the Company's tax-affected weighted average cost of capital. The calculation of the real discount rate can be found in Case No. INT-G-22-03, Exhibit No. 1, Page 11.

Inflation Rate

An inflation assumption is used in cost-effectiveness testing to convert nominal, forward-looking costs into real dollars. The company assumes an inflation rate of 2.0%.

Net-to-Gross

Net-to-gross (NTG) is a ratio that adjusts the therm savings of rebates and/or programs, so they solely reflect energy efficiency gains that are the direct result of energy efficiency programs. The NTG deducts therm savings resulting from free-ridership, or savings that would have occurred regardless of the program. It also increases therm savings to account for spillover, or savings that occurred but were not counted by the program, as well as therm savings resulting from market transformation. Unfortunately, estimates of net savings require making sweeping assumptions to model a theoretical scenario where the EE Program did not exist. Because of the difficulty in accurately calculating NTG percentages, the Company used an NTG of 100% for all rebate and program cost-effectiveness analysis. Intermountain also performs a sensitivity analysis for each rebate that determines the minimum allowable NTG ratio where the rebate would remain (or become) cost effective under the Utility Cost Test.

Results

The Company performed cost-effectiveness testing at the program level and the individual measure level. The Residential Program was found to be cost-effective with a UCT of 1.5. The Commercial Program remains in an awareness-building mode since its launch on April 1, 2021. The UCT of the Commercial Program was 0.4.

EM&V Schedule

The Company prepared a revised EM&V schedule through 2024. The dates on the schedule indicate the final year of data that will be included in the study. For example, the initial study that was conducted in 2020 used data through the year ended 2019.

The schedule was amended based on the amount of data available for analysis. The impact evaluation for residential water heating measures was moved to year end 2023 due to the limited number of both storage and tankless water heater rebates. The Company updated both the storage and water heater rebates effective April 1, 2021, and uptake has already increased. The impact evaluation planned for year-end 2022 for commercial kitchen rebates, fryer, griddle, and steamer, was also postponed. Due to the slow uptake in the Commercial Program, the Company plans to conduct a process evaluation for all commercial measures for year-end 2023. The Company consulted with the EESC on the revised EM&V study timing. In the interim years between formal, third-party evaluation, the Company will monitor, evaluate, and update program incentives with the best data available.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

2021 UCT Results

Rebate	Therm Savings	Annual Therm Savings	UCT Benefits	UCT Costs	UCT Ratio
Whole Home	274	461,690	$ 3,619,083	$ 2,194,169	1.6
Combi Radiant Heat System	113	339	$ 2,382	$ 3,307	0.7
70% Fireplace	10	-	$ -	$ -	-
.67 EF Water Heater	38	152	$ 751	$ 609	1.2
Tankless Water Heater	65	8,710	$ 68,276	$ 33,792	2.0
Whole Home Tier I	161	-	$ -	$ -	-
Whole Home Tier II	128	33,664	$ 263,884	$ 233,723	1.1
Furnace - 95% AFUE	87	235,248	$ 1,599,739	$ 1,222,688	1.3
Combination Boiler - 95% AFUE	155	465	$ 3,367	$ 2,707	1.2
Boiler - 95% AFUE	159	477	$ 3,739	$ 2,707	1.4
Storage Water Heater	38	456	$ 2,253	$ 2,606	0.9
Tankless Water Heater Tier I	65	9,230	$ 72,352	$ 60,659	1.2
Tankless Water Heater Tier II	58	232	$ 1,819	$ 1,609	1.1
Smart Thermostat	44	26,224	$ 113,436	$ 119,284	1.0
		776,887	**5,751,082**	**3,877,857**	**1.5**

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

2021 UCT Results

Rebate	Therm Savings	Annual Therm Savings	UCT Benefits	UCT Costs	UCT Ratio
Condensing Unit Heater	409	-	$ -	$ -	-
Boiler Reset Control	1,212	-	$ -	$ -	-
High-Efficiency Condensing Boiler	1,036	4,145	$ 32,492	$ 42,204	0.8
Fryer - Energy Star Certified	508	2,032	$ 9,428	$ 37,318	0.3
Steamer - Energy Star Certified	1,054	2,108	$ 9,781	$ 19,259	0.5
Griddle - Energy Star Certified	76	-	$ -	$ -	-
Energy Saving Kit	53	318	$ 1,163	$ 51,535	0.0
		8,603	**$ 52,864**	**$ 150,317**	**0.4**

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Whole Home Tier I - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			-
Lifetime Energy Savings (therms)			-
Present Value of Energy Savings	S	**$**	**-**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ -	$ -	
Total Resource Cost	$ -	$ -	

Costs

Rebate Costs			**Value**
Rebate Amount		$	900
Rebate Count			-
Total Rebate Costs	R	**$**	**-**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	2,117
Total Equipment & Installation Costs	I	**$**	**-**
Program Delivery & Administration			
Overhead Expenses[1]		$	-
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**-**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Whole Home Tier II - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			33,664
Lifetime Energy Savings (therms)			841,600
Present Value of Energy Savings	S	**$**	**263,884**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 263,884	$ 233,723	1.1
Total Resource Cost	$ 263,884	$ 606,394	0.4

Costs

Rebate Costs			**Value**
Rebate Amount		$	700
Rebate Count			263
Total Rebate Costs	R	**$**	**184,100**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	2,117
Total Equipment & Installation Costs	I	**$**	**556,771**
Program Delivery & Administration			
Overhead Expenses[1]		$	25,854
Direct Costs		$	23,768
Total Program Delivery & Administration Costs	A	**$**	**49,623**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	89%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Furnace - 95% AFUE - 2021 Cost-Effectiveness Results

Benefits

Energy Savings		**Value**
Annual Energy Savings (therms)		235,248
Lifetime Energy Savings (therms)		4,704,960
Present Value of Energy Savings	S	**$ 1,599,739**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 1,599,739	$ 1,222,688	1.3
Total Resource Cost	$ 1,599,739	$ 3,810,416	0.4

Costs

Rebate Costs		**Value**
Rebate Amount	$	350
Rebate Count		2,704
Total Rebate Costs	R	**$ 946,400**
Equipment & Installation Costs		
Incremental Cost Per Unit	$	1,307
Total Equipment & Installation Costs	I	**$ 3,534,128**
Program Delivery & Administration		
Overhead Expenses[1]	$	265,817
Direct Costs	$	10,471
Total Program Delivery & Administration Costs	A	**$ 276,288**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	76%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Combination Boiler - 95% AFUE - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			465
Lifetime Energy Savings (therms)			10,230
Present Value of Energy Savings	S	**$**	**3,367**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 3,367	$ 2,707	1.2
Total Resource Cost	$ 3,367	$ 10,873	0.3

Costs

Rebate Costs			**Value**
Rebate Amount		$	800
Rebate Count			3
Total Rebate Costs	R	**$**	**2,400**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	3,522
Total Equipment & Installation Costs	I	**$**	**10,566**
Program Delivery & Administration			
Overhead Expenses[1]		$	295
Direct Costs		$	12
Total Program Delivery & Administration Costs	A	**$**	**307**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	80%

NOTES

[1] Allocated based on percentage of portfolio rebate count.

[2] Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Boiler - 95% AFUE - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			477
Lifetime Energy Savings (therms)			11,925
Present Value of Energy Savings	S	**$**	**3,739**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 3,739	$ 2,707	1.4
Total Resource Cost	$ 3,739	$ 3,805	1.0

Costs

Rebate Costs			**Value**
Rebate Amount		$	800
Rebate Count			3
Total Rebate Costs	R	**$**	**2,400**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	1,166
Total Equipment & Installation Costs	I	**$**	**3,498**
Program Delivery & Administration			
Overhead Expenses[1]		$	295
Direct Costs		$	12
Total Program Delivery & Administration Costs	A	**$**	**307**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	72%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Storage Water Heater - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			456
Lifetime Energy Savings (therms)			5,928
Present Value of Energy Savings	S	**$**	**2,253**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 2,253	$ 2,606	0.9
Total Resource Cost	$ 2,253	$ 5,906	0.4

Costs

Rebate Costs			**Value**
Rebate Amount		$	115
Rebate Count			12
Total Rebate Costs	R	**$**	**1,380**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	390
Total Equipment & Installation Costs	I	**$**	**4,680**
Program Delivery & Administration			
Overhead Expenses[1]		$	1,180
Direct Costs		$	46
Total Program Delivery & Administration Costs	A	**$**	**1,226**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	116%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Tankless Water Heater Tier I - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			9,230
Lifetime Energy Savings (therms)			230,750
Present Value of Energy Savings	S	**$**	**72,352**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 72,352	$ 60,659	1.2
Total Resource Cost	$ 72,352	$ 270,109	0.3

Costs

Rebate Costs			**Value**
Rebate Amount		$	325
Rebate Count			142
Total Rebate Costs	R	**$**	**46,150**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	1,800
Total Equipment & Installation Costs	I	**$**	**255,600**
Program Delivery & Administration			
Overhead Expenses[1]		$	13,959
Direct Costs		$	550
Total Program Delivery & Administration Costs	A	**$**	**14,509**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	84%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Tankless Water Heater Tier II - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			232
Lifetime Energy Savings (therms)			5,800
Present Value of Energy Savings	S	**$**	**1,819**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 1,819	$ 1,609	1.1
Total Resource Cost	$ 1,819	$ 5,017	0.4

Costs

Rebate Costs			**Value**
Rebate Amount		$	300
Rebate Count			4
Total Rebate Costs	R	**$**	**1,200**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	1,152
Total Equipment & Installation Costs	I	**$**	**4,608**
Program Delivery & Administration			
Overhead Expenses[1]		$	393
Direct Costs		$	15
Total Program Delivery & Administration Costs	A	**$**	**409**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	88%

NOTES

[1] Allocated based on percentage of portfolio rebate count.

[2] Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Residential Energy Efficiency Program

Smart Thermostat - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			26,224
Lifetime Energy Savings (therms)			288,464
Present Value of Energy Savings	S	**$**	**113,436**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 113,436	$ 119,284	1.0
Total Resource Cost	$ 113,436	$ 184,866	0.6

Costs

Rebate Costs			**Value**
Average Rebated Amount[1]		$	98
Rebate Count			596
Total Rebate Costs	R	**$**	**58,386**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	208
Total Equipment & Installation Costs	I	**$**	**123,968**
Program Delivery & Administration			
Overhead Expenses[2]		$	58,590
Direct Costs		$	2,308
Total Program Delivery & Administration Costs	A	**$**	**60,898**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[3]	105%

NOTES

[1]Rebates pay the full cost of the individual thermostat up to a maximum of $100.

[2]Allocated based on percentage of portfolio rebate count.

[3]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Condensing Unit Heater - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			-
Lifetime Energy Savings (therms)			-
Present Value of Energy Savings	S	**$**	**-**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ -	$ -	
Total Resource Cost	$ -	$ -	

Costs

Rebate Costs			**Value**
Rebate Amount		$	1,500
Rebate Count			-
Total Rebate Costs	R	**$**	**-**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	2,889
Total Equipment & Installation Costs	I	**$**	**-**
Program Delivery & Administration			
Overhead Expenses[1]		$	-
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**-**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Boiler Reset Control - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			-
Lifetime Energy Savings (therms)			-
Present Value of Energy Savings	S	**$**	**-**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ -	$ -	
Total Resource Cost	$ -	$ -	

Costs

Rebate Costs			**Value**
Rebate Amount		$	350
Rebate Count			-
Total Rebate Costs	R	**$**	**-**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	612
Total Equipment & Installation Costs	I	**$**	**-**
Program Delivery & Administration			
Overhead Expenses[1]		$	-
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**-**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

High Efficiency Condensing Boiler - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			4,145
Lifetime Energy Savings (therms)			103,627
Present Value of Energy Savings	S	**$**	**32,492**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 32,492	$ 42,204	0.8
Total Resource Cost	$ 32,492	$ 52,164	0.6

Costs

Rebate Costs			**Value**
Average Rebated Amount[1]		$	2,022
Rebate Count			4
Total Rebate Costs	R	**$**	**8,087**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	4,511
Total Equipment & Installation Costs	I	**$**	**18,046**
Program Delivery & Administration			
Overhead Expenses[2]		$	34,118
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**34,118**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[3]	130%

NOTES

[1]Rebates are based on the capacity of the unit.

[2]Allocated based on percentage of portfolio rebate count.

[3]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Fryer - Energy Star Certified - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			2,032
Lifetime Energy Savings (therms)			24,384
Present Value of Energy Savings	S	**$**	**9,428**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 9,428	$ 37,318	0.3
Total Resource Cost	$ 9,428	$ 34,318	0.3

Costs

Rebate Costs			**Value**
Rebate Amount		$	800
Rebate Count			4
Total Rebate Costs	R	**$**	**3,200**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	50
Total Equipment & Installation Costs	I	**$**	**200**
Program Delivery & Administration			
Overhead Expenses[1]		$	34,118
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**34,118**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	396%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Steamer - Energy Star Certified - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			2,108
Lifetime Energy Savings (therms)			25,296
Present Value of Energy Savings	S	**$**	**9,781**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 9,781	$ 19,259	0.5
Total Resource Cost	$ 9,781	$ 18,329	0.5

Costs

Rebate Costs			**Value**
Rebate Amount		$	1,100
Rebate Count			2
Total Rebate Costs	R	**$**	**2,200**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	635
Total Equipment & Installation Costs	I	**$**	**1,270**
Program Delivery & Administration			
Overhead Expenses[1]		$	17,059
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**17,059**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	197%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Griddle - Energy Star Certified - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			-
Lifetime Energy Savings (therms)			-
Present Value of Energy Savings	S	**$**	**-**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ -	$ -	
Total Resource Cost	$ -	$ -	

Costs

Rebate Costs			**Value**
Rebate Amount		$	200
Rebate Count			-
Total Rebate Costs	R	**$**	**-**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	360
Total Equipment & Installation Costs	I	**$**	**-**
Program Delivery & Administration			
Overhead Expenses[1]		$	-
Direct Costs		$	-
Total Program Delivery & Administration Costs	A	**$**	**-**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

INTERMOUNTAIN GAS COMPANY

Commercial Energy Efficiency Program

Energy Saving Kit - 2021 Cost-Effectiveness Results

Benefits

Energy Savings			**Value**
Annual Energy Savings (therms)			318
Lifetime Energy Savings (therms)			2,862
Present Value of Energy Savings	S	**$**	**1,163**

Cost-Effectiveness Tests

Test	**Benefits**	**Costs**	**Ratio**
Utility Cost	$ 1,163	$ 51,535	0.0
Total Resource Cost	$ 1,163	$ 51,630	0.0

Costs

Kit Costs			**Value**
Average Kit Cost		$	58
Kit Count			6
Total Kit Costs	R	**$**	**349**
Equipment & Installation Costs			
Incremental Cost Per Unit		$	74
Total Equipment & Installation Costs	I	**$**	**444**
Program Delivery & Administration			
Overhead Expenses[1]		$	51,177
Direct Costs		$	9
Total Program Delivery & Administration Costs	A	**$**	**51,186**

Equations & Assumptions

Utility Cost Test	= S x NTG ÷ (R + A)
Total Resource Cost Test	= S x NTG ÷ (I x NTG + A)
Real Discount Rate	4.68%
Inflation Rate	2.00%
Net-to-Gross (NTG)	100%
Net-to-Gross Sensitivity[2]	4431%

NOTES

[1]Allocated based on percentage of portfolio rebate count.

[2]Minimum NTG value where rebate remains cost-effective under UCT.

ENERGY EFFICIENCY PROPOSED EM&V SCHEDULE 2018-2024							
For Rebates Issued Through the Year Ended							
Energy Efficiency Program	2024	2023	2022	2021	2020	2019	2018
Residential Measures:							
Whole Home						I/P	
Whole Home Tier I		I/P					
Whole Home Tier II		I/P					
Fireplace 70% FE						P	
Fireplace 80% AFUE						P	
Combination Boiler for Space and Water Heat		I/P				P	
Furnace		I/P				I/P	
Boiler		I/P					
Storage Water Heater		I/P				P	
Tankless Water Heater Tier I		I/P				P	
Tankless Water Heater Tier II		I/P					
Smart Thermostat		I/P					

Commercial Measures:							
Condensing Unit Heater		P					
Boiler Reset Control		P					
High-Efficiency Condensing Boiler		P					
Fryer		P					
Steamer		P					
Griddle		P					
Pilot: Energy Savings Kit		P/I					

Evaluation Type: I=Impact, P=Process, O= Other	
Program not yet in existence	
Measure offering modified	
Measure Offering retired	